PRODUCTION OF POLYETHER MONOALCOHOL

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Applicant(s):: HODOGAYA CHEM CO LTD
Requested Patent: JP63105029
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EC Classification:
Equivalents:

Abstract

PURPOSE:To easily obtain the titled alcohol wherein one of both terminals is quantitatively capped, at a low cost, by polymerizing THF in the presence of an active hydrogen-containing compound using a Lewis acid and a cyclic ether as polymerization initiators.
CONSTITUTION:A polyether monoalcohol is produced by polymerizing tetrahydrofuran in the presence of a compound containing one active hydrogen atom in one molecule using a Lewis acid and a 3-4-membered cyclic ether. The active hydrogen-containing compound is a compound having hydroxyl group, carboxyl group or thiol group, e.g. methanol, cyclohexanol, etc., and the ether is selected from epoxides or oxetanes.

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TI - PRODUCTION OF POLYETHER MONOALCOHOL

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PA - HODOGAYA CHEMICAL CO LTD

IN - OKABE KENSHO; TAKEUCHI SHUICHI

CT - JP38005442 A [ ]; JP50102698 A [ ]; JP63105030 A [ ]

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AN - 1988-165785 [24]

TI - Polyether-mono:alcohol for prepn. of polyurethane resin - prepd. by polymerising THF in presence of active hydrogen cpd. and initiator contg. Lewis acid and cyclic ether

AB - J63105029 Polyethermonoalcohol is prepd. by polymerising THF in the presence of a cpd. with one active H atom in it and polymerisation initiator comprising a Lewis acid a 3- or 4-membered cyclic ether. Pref. the cpd. with one active H atom is pref. monoalcohol (e.g. (m)ethanol, propanol, isopropanol, benzyl alcohol, cyclohexanol, etc.), monophenol (e.g. phenol, cresol, butyl phenol, naphthol, etc.), monocarboxylic acid (e.g. formic, acetic, propionic, butyric, caprylic, lauric, stearic, (meth)acrylic, oleic, benzoic, succinic acid, etc.) or thiol (e.g. (m)ethyl, allyl, oleyl or benzyl mercaptane, etc The Lewis acid is pref. BF3, PF5, SbF5, AlCl3m SnCl4, SiO2, TiO2 or complex of BF3 PF5 or SBfF5 and dimethyl ether or THF. The cyclic ether is pref. epoxide (e.g. ethylene- or propylene-oxide or epichlorohydrin) or oxetane (e.g. oxetane, 3,3-bis(chloromethyl)oxetane, etc.).The polymerisation is carried out at minus 30 deg.C to plus 60 deg.C using excess amt. of THF as a solvent or an inert organic solvent (e.g. benzene, toluene, diethyl- or dibutyl-ether).

- USE/ADVANTAGE - The process provides polyethermonoalcohol comprising polyoxytetramethylene chain with one capped terminal quantitatively. The polyethermonoalcohol is used for prepg. polyurethane-, polyester- or polyamide-resin with high elasticity, resistance to water and cold.(0/0)

IW - POLYETHER MONO ALCOHOL PREPARATION POLYURETHANE RESIN PREPARATION POLYMERISE THF PRESENCE ACTIVE HYDROGEN COMPOUND INITIATE CONTAIN LEWIS ACID CYCLIC ETHER

AW - TETRA HYDRO FURAN

PN - JP63105029 A 19880510 DW198824 004pp

IC - C07C43/11 ;C08G65/26

MC - A02-A04 A05-H05 E07-A02E E07-A03 E10-H01E E31-K07 E31-M E31-P03 E31-Q02 E34-C03 E35-H E35-K02

DC - A25 E19

PA - (HODO) HODOGAYA CHEM IND CO LTD

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AB - PURPOSE:To easily obtain the titled alcohol wherein one of both terminals is quantitatively capped, at a low cost, by polymerizing THF in the presence of an active hydrogen-containing compound using a Lewis acid and a cyclic ether as polymerizatio initiators.

- CONSTITUTION:A polyether monoalcohol is produced by polymerizing tetrahydrofura in the presence of a compound containing one active hydrogen atom in one molecule using a Lewis acid and a 3-4-membered cyclic ether. The active hydrogen-containing compound is a compound having hydroxyl group, carboxyl group or thiol group, e.g. methanol, cyclohexanol, etc., and the ether is selected from epoxides or oxetanes.

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PA - HODOGAYA CHEM CO LTD

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